

Sub B17
An integrated RF filter for use at microwave frequencies comprising:
an integrated circuit inductor with connected integrated circuit capacitors, arranged as a tank circuit, and an integrated circuit shunt resistor;
said inductor, capacitors and resistor being interconnected in a bridge-T filter arrangement.

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2. (AMENDED) An integrated RF filter for use at microwave frequencies comprising:
first and second capacitors connected in series between an input and an output of said filter;
an inductor, connected between said input and said output of said filter, in parallel to said series connected capacitors, said first and second capacitors and said inductor comprising a tank circuit; and
a shunt resistor connected between ground, and the common side of said first and second capacitors.

3. The integrated RF filter of claim 2, wherein the value of said shunt resistor is selected to be equal in magnitude to the impedance of said inductor and capacitor tank circuit at the centre of its operating frequency band.

4. The integrated RF filter of claim 2, wherein the value of said shunt resistor is selected to be equal in magnitude to the impedance of said inductor and capacitor tank circuit at its resonant frequency.

5. The integrated RF filter of claim 3, implemented in a silicon technology.

6. The integrated RF filter of claim 3 wherein said silicon technology comprises silicon bipolar technology.

7. Two or more integrated RF filters implemented according to claim 1, connected in a cascode arrangement, thereby enhancing their overall performance in providing additional rejection of out-of-band signals.

Varactor Diodes

8. The integrated RF filter of claim 5, wherein said capacitors are implemented as variable capacitors, thereby permitting a degree of tuning of the filter frequency of the circuit during use.

9. The integrated RF filter of claim 8 wherein said variable capacitors are implemented using varactor diodes.

10. An integrated RF filter as claimed in claim 5, for use at frequencies exceeding 800 MHz.

At Wind

11. (AMENDED) A computer readable memory medium, storing computer software code in a hardware development language for fabrication of an integrated RF filter for use at microwave frequencies comprising:

first and second capacitors connected in series between an input and an output of said filter; an inductor, connected between said input and said output of said filter, in parallel to said series connected capacitors, said first and second capacitors and said inductor comprising a tank circuit; and

a shunt resistor connected between ground, and the common side of said first and second capacitors.

12. (AMENDED) A computer data signal embodied in a carrier wave, said computer data signal comprising computer software code in a hardware development language for fabrication of an integrated RF filter for use at microwave frequencies comprising:

first and second capacitors connected in series between an input and an output of said filter; an inductor, connected between said input and said output of said filter, in parallel to said series connected capacitors, said first and second capacitors and said inductor comprising a tank circuit; and

a shunt resistor connected between ground, and the common side of said first and second capacitors.